DOCUMENT RESUME

ED 298 325 CE 050 890

AUTHOR McAuliffe, Garrett J.
TITLE Outcomes of a Group Career Planning Process. Occasional Paper No. 126.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
PUB DATE 88
NOTE 21p.
AVAILABLE FROM National Center Publications, The Ohio State University, 1960 Kenny Road, Columbus, OH 43210-1090 (Order No. OC126--$3.00).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Choice; *Career Counseling; Career Planning; College Students; Community Colleges; *Counseling Techniques; Decision Making; *Decision Making Skills; Outcomes of Education; Program Effectiveness; *Program Length; Skill Development; *Small Group Instruction; Two Year Colleges

ABSTRACT

A study examined a group career decision-making treatment for community college students and attempted to determine the following: (1) the effects of group career decision-making skills, appropriateness of occupational choice, and frequency of information-seeking behavior; (2) the relationship between decision-making skills and the appropriateness of subjects' decisions; (3) the effect of the comprehensiveness and duration of a treatment; and (4) the effects of age, sex, and reading-level differences on career decision-making and on structured group interventions. Following a review of literature that found significant positive outcomes in many studies of group treatments, 39 students volunteered to take career decision-making courses in fall 1983 at a rural, open-admissions community college in the northeast. Two experimental groups received a longer treatment of 20 75-minute sessions for 10 weeks or a shorter treatment of 10 75-minute sessions lasting 5 weeks. The third group was in a no-treatment condition for 5 weeks and then received the longer treatment. The results favored the effectiveness of the longer treatment. Some significant age differences, favoring younger students, were noted, although sex and reading-level differences were negligible. The research encourages continued group approaches to career decision making, but warns about the limitation of short-term interventions and those that do not provide for individualization. (KC)

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ED298325

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Garrett J. McAuliffe

Occasional Paper No. 126

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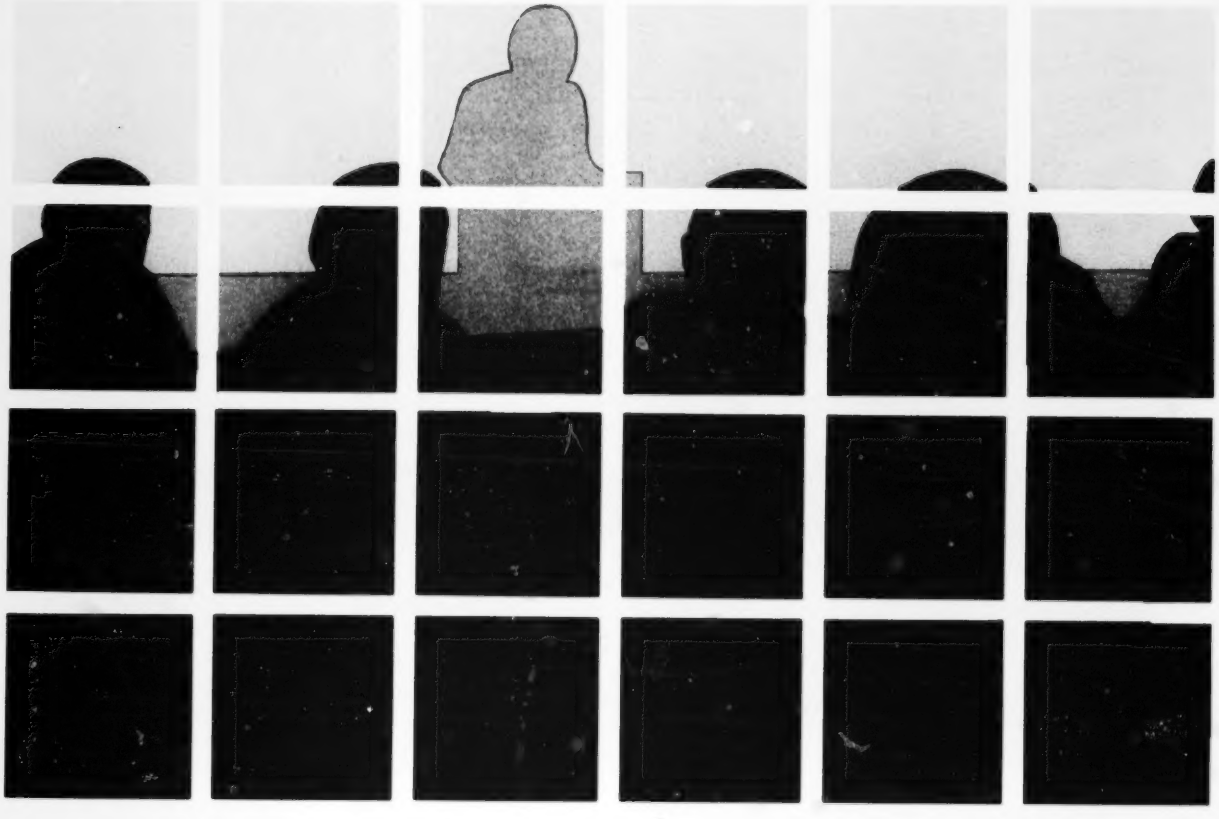

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Occasional Paper No. 126

OUTCOMES OF A GROUP CAREER PLANNING PROCESS

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FOREWORD

One activity during the National Center's 20th anniversary celebration was to honor an outstanding dissertation research contribution to the field of vocational and technical education. Following a national survey, Garrett McAuliffe's dissertation, "A Study of Group Career Development Intervention Based on Social Learning and Decision Making Principles," was selected because of the demonstration of high-quality research in the area of career development and the counseling process.

McAuliffe began his career as a secondary teacher in New York state. He earned a B.E.A. degree with highest honors in English from Queens College and a master's in science and student development in counseling in psychology from the State University of New York in Albany. His doctorate in education is from the University of Massachusetts.

Currently, McAuliffe is the director of the Learning Assistance Center at Greenfield Community College in Massachusetts. The center supports a network of activities aimed at providing students with personal and academic skills, personal and academic effectiveness, and career-related effectiveness. The center helps students with tutoring for all courses, study skills development training, and access to a reading, writing, and math lab.

As recipient of the Outstanding Dissertation Award, McAuliffe was invited to present his research findings at a staff development seminar at the National Center. On behalf of The Ohio State University and the National Center for Research in Vocational Education, we are pleased to present this seminar paper by Garrett McAuliffe.

THE OUTCOMES OF A GROUP CAREER PLANNING PROCESS

Introduction

In the last 15 years there has been a proliferation in the cope of, and in the target population for, career interventions. From a previous reliance on testing and one-to-one counseling, generally targeted at youth, a variety of career counseling techniques and delivery modes have been applied (Holland, Magoon, and Spokane 1981). Combinations of traditional testing materials, self-assessment activities, computer assistance, and self-help books have been employed with both adults and young people. An influential approach during this time has been the use a combination of techniques with groups. The decision-making models (Katz 1963; Gelatt, Varenhorst, Carey, and Miller 1973; Krumboltz and Baker 1973) have emerged as possibly the most comprehensive approaches to career guidance.

As is usually the case, research on the effectiveness of these methods has lagged behind practice. Holland, Magoon, and Spokane (1981) have said, "New or revised forms of career assistance are easily created; their evaluation comes harder" (pg. 281). Others, in reviewing the literature, have called for more research on group career interventions (Thoresen and Ewart 1976; Gottfredson 1978).

Study Objectives

This study examined a group career decision-making treatment for community college students and attempted to answer the following four questions:

1. What are the effects of group career decision-making instruction on clients' certainty, satisfaction, plans, number of occupational alternatives being considered, decision-making skills, appropriateness of occupational choice, and frequency of information-seeking behavior?

2. What is the relationship between decision-making skills (both cognitive and information seeking) and the quality (appropriateness) of subjects' decisions?

3. What is the effect of the comprehensiveness and duration of a treatment?

4. What are the effects of age, sex, and reading-level differences on career decision making, and how might these differences affect structured group interventions?

Literature Review

Despite the primitive stage of group career intervention research, some promising directions have emerged. This reviewer (McAuliffe 1983) has found significant positive outcomes on one or more measures in a number of studies of group treatments (Yabroff 1964; Ryan 1968; Evans and Cody 1969; Smith and Evans 1973; Mencke and Cochran 1974; Cochran, Hoffman, Strand, and Warren 1977; Ganster and Lovell 1978; Evans and Rector 1978; Egner and Jackson 1978; Schenk,

Johnston and Jacobsen 1979; Snodgrass and Healy 1979; Brenner and Gazda-Grace 1979; Young 1979; Rubinton 1980; Blecharczyk and Fortune 1981; Rayman, Bernard, Holland and Barnett 1983). On the other hand, there have been group career decision-making treatments that have not demonstrated significant outcomes (Bergland, Quatrano and Lundquist 1975; Krumboltz 1979; Jepsen, Dustin and Miars 1981).

Global reviews of career decision-making outcome studies have also noted generally positive results. Fretz's (1981) comprehensive review of all of the outcome research (both one-to-one and group) suggested that "myriad, diverse intentions result in small yet consistently detectable gains" (p. 77). Spokane and Oliver (1982) did a meta-analysis of 52 career intervention studies and confirmed this, finding that the outcome status of the average client receiving and type of vocational intervention exceeded that of 80 percent of the untreated controls (effect size = .84). Holland, Magoon, and Spokane (1981) ascribe such positive results to "the average client knowing so little about career decision-making . . . that a small amount of new information and support makes a difference" (p. 285). Outcomes for groups, specifically, were even better as Spokane and Oliver (1982) found that subjects receiving group treatments exceeded 87 percent of the controls (effect size = 1.11). They speculate that this was due to their being more "intensive" (i.e., having more time) and more comprehensive, providing more support, and, possible, teaching to the outcome measures.

Goals of the Study

Positive global findings have led a number of authors (Snodgrass and Healy 1979; Krumboltz 1979; Fretz 1981; Spokane and Oliver 1982; Rayman, Bernard, Holland and Barnett 1983) to suggest that we must now conduct our research on a more analytical level. The research described here specifically investigated three dimensions: outcome measures, treatment components, and attribute-treatment interaction.

Outcome Measures

Most authors agree with Oliver (1978) and Pitz and Harren (1980) that the use of short-term measures is more desirable than long-term ones, mostly because of the influence of intervening variable over the longer term. Additionally, both of these authors, plus Bergin and Garfield (1971), suggest that specific rather than global measures be used so that the relationship between particular treatment components and client outcomes are tapped. However, the precise criteria to be measured have been less well defined. One debate has been over the relative merits of measuring the learning of a decision-making process versus the outcomes of that process, with Katz (1969) arguing that the learning of decision-making skills should be the major criterion for treatment success, and with Krumboltz (1979) insisting that we must also measure the quality of subjects' actual decisions.

At this stage of our knowledge of career decision-making outcomes, it has been suggested (Oliver 1978; Fretz 1981) that *multiple criteria* be applied, since career counseling outcomes are multidimensional. This implies, for example, that, at this point, both decision-making skills and the quality of decisions should be measured. Oliver further proposes that measure be of more than one type, such as behavioral, cognitive, or attitudinal. Oliver (1978) and Fretz (1981) have each described up to 25 potential measures for future research. The following three categories of measures were reviewed for this study:

1. Learning of a decision-making process
   (a) Information-seeking
   (b) Cognitive decision making

2. Decisional outcomes
   (a) Subjective
   (b) Objective

3. Attitudes

Comparing Treatments

The second major goal of this study was to analyze the contribution of particular treatment components. Although a generally beneficial effect of career interventions has been observed, both by this reviewer (McAuliffe 1984) and by Oliver (1978), Fretz (1981), Spokane and Oliver (1982), and Holland, Magoon, and Spokane (1983), more analytical work on the contributions of specific treatment modes and components is now required.

At this point we have enough research information about career interventions to indicate that (1) more comprehensive treatments and possibly (2) those that combine group and individual counseling are superior. Holland, Magoon, and Spokane (1983) have further suggested five specific treatment dimensions that underlie effective career interventions: accessible occupational information, assessment of self-information and vocation potentials, rehearsal of career plans in individual or group activities, social support from counselors and peers, and a comprehensive cognitive structure for integrating information about self and occupations.

This study attempted to analyze the importance of two treatment elements: duration and comprehensiveness. A shorter intervention of 10 sessions, which covered parts of 4 decision-making steps, was compared to a 20-session, 7-step program.

Attribute-Treatment Interactions (ATIs)

The assumption of "client uniformity" (Kiesler 1971) has pervaded career counseling research. Fretz's (1981) review indicated that the relative number of career intervention studies that have tested client attribute-treatment interactions has been small. Fretz has suggested potential client attributes worthy of study, including sex, age, race, socioeconomic status, urban/rural origin, intelligence, cognitive complexity, need for achievement, locus of control, dependence, type of undecideness, decision style, and motivation for treatment. Age, sex, and academic ability were reviewed for this study.

Age

Although few group treatment studies have looked at age, its importance continues to increase. A wide range of age groups are now targeted for career intervention (Holland, Magoon, and Spokane 1983), and developmental theory indicates that career needs vary according to age (Ginzberg, Ginsburg, Axelrod, and Herma 1951; Super 1957, 1980). For example, from developmental theory we might expect younger clients to have a great need for exploration, whereas older clients might need faster closure on a career decision.

Mencke and Cochran (1974), in finding male college juniors and seniors to have decreased the number of occupational alternatives being considered after treatment, speculated that at this stage the upperclassmen were ready to make a commitment to a smaller range of occupations. Krumboltz (1979) found that older subjects performed significantly better on two measures of decision-making skills after a decision-making treatment than did younger ones, although older males performed significantly more poorly than any other group. Biecharczyk and Fortune (1981) did not find any age differences on career attitudes or decision-making skills, but their age range was only 14 to 17. No study was found that aimed a particular treatment at a specific age group, although Regehr and Herman (1982) used only decision-making skills as a measureof their subjects' actual career decisions. Exploration seems to be a goal of interventions with younger clients; movement toward closure characterizes treatments with older ones.

Sex

Differences and similarities in the ways that career impacts members of each sex make the study of this variable urgent. Grace (1979) found women in an all-woman career planning group to score significantly higher on decision-making ability after treatment than did women in a mixed group. Krumboltz (1979) and Grace (1979) found that women in an all-woman career planning group scored significantly higher on decision-making ability after treatment than did women in a mixed up group. Krumboltz (1979) found females in general to score higher on decision-making skills than did older males, but they were no different from younger males. Egner and Jackson (1978) found females to benefit significantly more than males from treatment.

As with age, specific treatment components aimed at sex might continue to be explored, as well as general sex differences in outcomes.

Academic Ability

The verbal dimension of many career interventions makes this a potentially important subject attribute. Yarbroff (1964) found no significant relationship between academic ability and decision-making skill, but Egner and Jackson (1978) found "nonacademic" subjects to have increased their career maturity after treatment, as opposed to "academic" subjects, who did not show such increase. Preexisting differences in the two groups' cognitive skills and in their career awareness may have contributed to these results, the authors indicate.

Overall, the interest in group career decision-making interventions has led to a growing amount of research. Despite the generally favorable findings for groups treatments, we are still left with questions about appropriate outcome measures, the effect of specific treatment components, and client-attribute treatment interactions.

Research Method

Subject and Treatment Variables

Thirty-nine community college students volunteered to take career decision-making courses in fall 1983 at a rural, open-admissions community college in the northeast. They self-selected into three groups based on the time of day the course was offered, which was considered a random choice. Table 1 compares the groups. An analysis of variance was done on pretest scores; there were no significant differences.

The two experimental groups consisted of a longer treatment (LT) of 20, 75-minute sessions lasting 10 weeks (twice per week) and a shorter treatment (ST) of 10, 75-minute sessions lasting 5 weeks. LT covered a complete decision-making model comprised of seven steps: (1) commitment to decision making, (2) self-assessment, (3) generating alternatives, (4) information seeking, (5) choosing, (6) making plans, and (7) taking action. A shorter treatment (ST) consisted of 10 sessions, with the last 2 decision-making steps not being covered, and steps 3, 4 and 5 being covered more briefly. Activities for both groups included paper-and-pencil exercises, small- and large-group discussions, interest inventory interpretation, and independent information, including one informational interview. A locally developed workbook accompanied the course. The third group was in a "no-treatment" condition for 5 weeks; they subsequently received the longer treatment. From 10 to 16 subjects made up each group, ranging in age from 16 to 51 (overall average age: 26).

Subjects were representative of undecided community college students, as the were significantly (p. 01) less certain and satisfied with their career plans than were those students who did not take the course (McAuliffe and Luippold 1983).

TABLE 1
INDEPENDENT VARIABLES

Group	N	Mean Age	Sex		Reading Level	
			Male	Female	Mean	Range
Longer Treatment	16	22.56	2	14	64.5	45-95
Shorter Treatment	10	29.50	4	6	70.0	47-99
Control Treatment	13	26.07	4	9	63.6	12-144

Design

A prepost control group design was employed.

Materials

All subjects were given the following three instruments immediately before and after treatment:

1. *The Career and Educational Planning Questionnaire* measured self-reported certainty, plans, alternatives, and first-choice occupation. These constructs were defined clearly on the questionnaire. The certainty and satisfaction questions are based on similar measures used by Dressel and Matteson (1950); Hoyt (1955); Hewer (1959); Healy (1973); Melhus, Hershenson, and Vermillian (1973); Ullrich (1973); Wachowiak (1973); Westbrook (1974); Barak, Carney and Archibald (1975); Zener and Schnuelle (1976); Snodgrass and Healy (1979); O'Neil, Ohlde, Berke, Gelwick and Garfield (1980); and Atanasoff and Slaney (1980).

As a measure of validity, Westbrook reported a relationship between volunteering for career counseling and high uncertainty, indicating that the certainty and satisfaction questions distinguish undecided from decided students. McAuliffe (1983) reported a similar correspondence between students seeking out a career decision-making course and greater uncertainty, as compared to the general student population (p. 01).

Hoyt (1941) and Shepherd (1972) both report high test-retest reliability, with Hoyt at .94 for certainty and Shepherd at .89 and .91 for the two questions. Barak, Carney, and Archibald (1975) found occupational and educational certainty items to be highly related to each other, with correlations ranging from .650 to .745 prior to treatment, and .716 to .802 after.

"Number of alternatives" has been used as a measure of career counseling outcomes by Zener and Schnuelle (1972), Redmond (1973), Mencke and Cockran (1974), Talbot and Birk (1979), Lawler (1979), and Atanasoff and Slaney (1980). Neither more nor fewer occupations is considered universally desirable as a career treatment outcome. The relationships between number of alternatives and client goals and age were further explored. Client goals on this measure were assessed by asking whether the client desired more or fewer alternatives.

"Appropriateness of occupational choice" was assessed by a comparison of the Holland code of subjects' first-choice occupation with their Self-Directed Search-derived three-letter code (Holland 1973). An adaptation of the "Index of Similarity" (Zener and Schnuelle 1976) was used to measure the appropriateness. Educational and occupational plans were counted and rated for frequency and variety, using a standardized protocol.

2. *The Vocational Information-Seeking Behavior Inventory* measured the frequency of self-reported information seeking. This behavior included talking to others, using print and non-print materials, and visiting places for information. This inventory is based on a similar one by Young (1981), which itself was developed from previous information-seeking inventories, including Krumboltz and Thoresen's (1964). Reliability for this instrument was assessed by Young (1981) via a 93.56 percent verification of a random subsample of subjects' self-reported information seeking. As a further validity check, subjects were also asked to name the persons they had talked to, the materials they had used, and the places they had visited.

3. *The Decision-Making Scale of the Career Development Inventory* (Thompson and Lindeman 1981) measured cognitive decision-making skills. Content validity of this scale has been established by experts in the field (Thompson and Lindeman 1981). Construct validity has been assessed by finding predictable age-associated patterns in scores (Thompson and Lindeman 1981). Reliability was reported via a Cronback's alpha of .62, which was considered sufficient for comparing groups.

Data Analysis

The hypotheses were tested via analysis of variance (F-test) and by means of t-tests. An alpha level of .05 was selected.

Findings and Conclusions

The trend in the results favored the effectiveness of the longer treatment over the control, and, to a lesser extent, the longer treatment over the shorter one. The longer treatment scored significantly higher than the control on satisfaction with occupational plans and frequency of information-seeking and nonsignificantly higher on eight of the other posttest measures.

The shorter treatment scored significantly higher than the control only on frequency of information-seeking, and nonsignificantly higher on seven of the other nine measures. On within-group change scores, the longer treatment gained significantly on five measures, compared to three for the shorter treatment, and none for the control.

A partial follow-up study showed treatment gains to be maintained for the longer treatment, particularly on certainty and satisfaction measures, information-seeking, and in a consistently smaller number of occupational options.

Some significant age differences were noted, although sex and reading level differences were generally negligible. On age, the trend favored younger students on most measures. Younger subjects has significantly (p .05) higher pretest scores on variety of occupational plans, decision-making skills, and information-seeking. They also were significantly higher on posttest satisfaction with occupational plans. Additionally, younger subjects had nonsignificantly higher scores on all four (pre- and post-) certainty measures.

Implications

This study confirms the trend that indicates positive outcomes from group career decision-making interventions. The seeming superiority of a longer-term treatment suggests that longer duration and greater comprehensiveness are superior to more limited interventions. Individual differences, especially in the area of age, seem to warrant major consideration also in the design of such group approaches. Attitudinal factors, such as "indecisiveness" (Van Matre and Cooper 1984) may play a part in the impact of the treatment. As a result of this study, the following recommendations for practice can be made:

- Distinguish between brief and more comprehensive group career treatments by identifying the former as "introductory" and the latter as "decision-oriented."
- Provide one-to-one counseling opportunities as part of a groups career decision-making treatment.
- Include a thorough information-seeking component in all groups career decision-making treatment.
- Assess clients' "readiness" (i.e., attitudes) before treatment.
- Provide attitudinal interventions during the treatment due to differences in client readiness and goals.
- Encourage clients to make explicit follow-up plans as a consequence of the intervention.

Future research on group career decision-making treatments should continue and extend some of the following methods:

- Analyze the contribution of specific treatment components, linking them with specific outcomes.
- Examine the interaction between client attributes (e.g., age, sex, "readiness," indecisiveness) and different treatments.

- Utilize a broad range of outcome criteria, including behavioral, cognitive, and attitudinal measures.
- Measure decision-making skills by direct means, in the context of actual decision-making situations.
- Do time-lag follow-up, in order to measure whether changes last.
- Continue to attempt to measure the appropriateness of decisions as an outcome.

Significance

As a result of this study, career guidance practitioners, especially those in community colleges, can more confidently plan group career decision-making experiences, knowing that their general value has been confirmed. We are no longer in an explanatory phase of research on this topic. Group career decision-making treatments improve clients' certainty and satisfaction concerning career plans and encourage them to seek occupational information. The advantage of a comprehensive, longer treatment is also suggested, confirming a trend in other research. Brief career guidance treatments seem to have minimal impact on students' effective career planning; such shorter sessions should set limited goals and be identified as "introductory." Practitioners are also advised to treat clients in a group treatment individually, especially as it relates to attitude and age. This is particularly important in the community college setting, which is characterized by a heterogeneous population. We also now have further confirmation that not all clients achieve "closure" in terms of solid decision made as a result of group treatment. Practitioners can now emphasize the building of career decision making skills for the continuing exploration that many clients must do.

In summary, this research encourages continued group approaches to career decision-making, but warns us about the limitations of short-term interventions and those that do not provide for individualization.

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